www.pwc.com

# Indiana Public Retirement System

Prosecuting Attorneys' Retirement Fund

Actuarial Valuation as of June 30, 2011





January 31, 2012

Board of Trustees Indiana Public Retirement System 1 North Capitol, Suite 001 Indianapolis, IN 46204

Re: Certification of the Actuarial Valuations of the Indiana Public Retirement System as of June 30, 2011

Dear Board of Trustees:

Actuarial valuations are performed annually for the Indiana Public Retirement System ("INPRS") defined benefit pension plans ("Plans"). The results of the latest actuarial valuations, which were prepared as of June 30, 2011, are presented in individual valuation reports for each fund and were prepared pursuant to the engagement letter between INPRS and PricewaterhouseCoopers LLP ("PwC"), dated June 7, 2010. The reports are intended to provide the Board of Trustees ("Board") with information on the funded status of the Plans, development of the contribution rates, and certain financial statement disclosure information.

Under Indiana statutes, employer contribution rates are adopted annually for each Plan by the Board. These rates are actuarially determined based on the Board's funding policy and adopted actuarial assumptions. Contribution rates determined by the actuarial valuation become effective either twelve or eighteen months after the valuation date, depending on the applicable employer. For example, the rates determined by the June 30, 2011 actuarial valuation and adopted by the Board will become effective on either July 1, 2012 or January 1, 2013. If new legislation is enacted between the valuation date and the date the contribution rates become effective, the Board may adjust the recommended rates before adopting them, in order to reflect this new legislation. Such adjustments are based on information supplied by the actuary.

#### **Financing Objectives and Funding Policy**

In setting the contribution rates, the Board's principal objectives have been:

- To set contribution rates such that the unfunded actuarial accrued liability ("UAAL") will be amortized over a 30-year period.
- To set contribution rates such that they remain relatively level over time.

To accomplish this, the Board's funding policy requires that the employer contribution rate be equal to the sum of the employer normal cost rate (which pays the current year cost) and an amortization rate which results in the amortization of the UAAL in equal installments.

At the December 16, 2011 meeting, the Board resolved to discontinue the use of contribution rate smoothing rules previously employed for the Public Employees' Retirement Fund, the State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan, the 1977 Police Officers' and Firefighters' Pension and Disability Fund, and the Prosecuting Attorneys' Retirement Fund. For political subdivisions participating in the Public Employees' Retirement Fund, a systematic method for migrating all employers to a single contribution rate was adopted.

No membership growth is anticipated in setting the contribution rate. This is consistent with GASB #25, which prohibits anticipating membership growth in determining the minimum Annual Required Contribution ("ARC").

#### **Progress Toward Realization of Financing Objectives**

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a Plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. The combined funded ratio for all Plans decreased by 2.7% from the preceding year to 83.4%, primarily due to the delayed recognition of asset losses from 2008 - 2009 in the Actuarial Value of Assets, partially offset by asset gains since such time and changes to some of the actuarial assumptions pursuant to the experience study.



#### **Benefit Provisions**

The benefit provisions reflected in the valuation reports are those which were in effect at June 30, 2011, as set forth in the related Indiana statutes. None of the Plans had any material changes in benefit provisions since the 2010 valuation.

#### **Assets and Member Data**

The valuations were based on asset values of the trust funds and member census data as of June 30, 2011. All asset and member data was provided by INPRS. While certain checks for reasonableness were performed, the data was used unaudited. The accuracy of the results presented in the reports is dependent upon the accuracy and completeness of the underlying asset and census information.

#### **Actuarial Assumptions and Methods**

The actuarial assumptions used in the June 30, 2011 valuations were adopted by the Board pursuant to the Experience Studies of September 2011, which reflect the experience period from July 1, 2005 and June 30, 2010. The actuarial assumptions for interest rate, COLA, and amortization method were approved by the Board in September 2010 for use in the 2010 valuations. The actuarial assumptions and methods are summarized in the Actuarial Assumptions and Methods section of each valuation report. The actuarial assumptions and methods are reasonable for the purposes of the valuation reports and comply with the parameters set forth in Statements No. 25 and No. 27 of the Governmental Accounting Standards Board ("GASB"). Different assumptions and methods may be reasonable for other purposes. As such, the results presented in the valuation reports should only be relied upon for the intended purpose.

#### Certification

We certify that the information presented herein is accurate and fairly portrays the actuarial position of each Plan administered by INPRS as of June 30, 2011.

This report contains the required accounting information to be included in the Comprehensive Annual Financial Report. This information has been prepared in accordance with our understanding of Governmental Accounting Standards No. 25 and No. 27 (as amended by No. 50).

To the best of our knowledge this actuarial statement is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of Indiana state law. The undersigned actuaries are members of the Society of Actuaries and other professional organizations, including the American Academy of Actuaries, and meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States relating to pension plans. There is no relationship between PwC and INPRS that may impair our objectivity.

This document was not intended or written to be used, and it cannot be used, for the purpose of avoiding U.S. federal, state, or local tax penalties. This includes penalties that may apply if the transaction that is the subject of this document is found to lack economic substance or fails to satisfy any other similar rule of law. This document has been prepared pursuant to an engagement letter between INPRS and PwC, and is intended solely for the use and benefits of INPRS and not for reliance by any other person.

Respectfully submitted,

Ms. Cindy Fraterrigo

Member, American Academy of Actuaries Fellow of the Society of Actuaries Enrolled Actuary (No. 11-06229)

Cindy Draturyo

Mr. Sheldon Gamzon

Member, American Academy of Actuaries Fellow of the Society of Actuaries Enrolled Actuary (No. 11-03238) Mr. Brandon Robertson

Member, American Academy of Actuaries Associate of the Society of Actuaries Enrolled Actuary (No. 11-07568)

## TABLE OF CONTENTS

I.	EXECUTIVE SUMMARY	Ī
II.	FUNDING	
	A. Development of Funded Status	5
	B. Unfunded Actuarial Accrued Liability Reconciliation	8
	C. Actuarial Accrued Liability Reconciliation	ç
	F. Reconciliation of Market Value of Assets	10
	G. Reconciliation of Actuarial Value of Assets	11
	D. Contribution Rate	12
	E. Unfunded Actuarial Accrued Liability Amortization Schedule	13
	H. Approximate Investment Return for Year Ending June 30, 2011	14
	I. Historical Investment Experience	14
III.	ACCOUNTING	
	A. Assumptions and Methods Under GASB #25 and #27	15
	B. Membership Data	15
	C. Statement of Plan Net Assets	16
	D. Statement of Changes in Plan Net Assets	17
	E. Schedule of Funding Progress	18
	F. Schedule of Employer Contributions	18
	G. Development of Net Pension Obligation (NPO)	19
	H. Three-Year Trend Information	19
	I. Solvency Test	20
IV.	CENSUS DATA	21
v.	ACTUARIAL ASSUMPTIONS AND METHODS	29
VI.	SUMMARY OF PLAN PROVISIONS	32
VII.	DEFINITIONS OF TECHNICAL TERMS	36

INPRS PwC

#### HIGHLIGHTS OF THE ACTUARY'S REPORT

This report presents the results of the actuarial valuation of the Prosecuting Attorneys' Retirement Fund ("PARF") and has been prepared to present the current funded status of the Plan, contribution requirements for fiscal year 2013 (July 1, 2012 through June 30, 2013), and certain financial statement disclosure information. The valuation was performed using census data for plan members as of as of June 30, 2011 provided by INPRS, asset information as of June 30, 2011 provided by INPRS, the actuarial assumptions and methods approved by the Board and summarized in Section V, and the plan provisions effective June 30, 2011 as summarized in Section VI.

#### **Contributions**

PARF is a State appropriated fund. All employer contributions are made by the State of Indiana. The annual required contribution rate has increased from 9.32% for fiscal 2012 to 13.52% for fiscal 2013.

At the December 16, 2011 meeting, the Board resolved to discontinue the use of the contribution rate smoothing rules. Beginning with the June 30, 2011 valuation, the Board will request, at its discretion, state appropriations upon considering the results of the actuarial valuation and other actuarial analysis as appropriate.

Members of PARF contribute 6% of their compensation to the Plan. If a member terminates employment with less than 8 years of service, the accumulated contributions with interest can be withdrawn as a lump sum. When a member becomes vested with at least 8 years of service, the member account balance may not be refunded and is instead combined with the employee contributions in order to fund the member's future retirement annuity benefit.

#### **Funded Status**

The funded status of PARF is measured by the funded ratio, which is the ratio of the assets available for benefits to a benefit liability measure for PARF. While there are several such measures that could be appropriately used, the benefit liability measure that ties most closely to your funding strategy is the Actuarial Accrued Liability ("AAL").

Using the Actuarial Value of Assets ("AVA"), an asset value that smoothes the market gains and losses over four (4) years, the PARF AAL funded ratio decreased from 53.2% at June 30, 2010 to 48.2% at June 30, 2011. The decrease is primarily due to the delayed recognition of previous asset losses in the Actuarial Value of Assets, as well as an increase in the AAL related to census experience.

#### **Investment Experience**

On a Market Value basis, from June 30, 2010 to June 30, 2011, PARF experienced an approximate investment return of 19.2%. However, on an Actuarial Value basis over the same time period, PARF experienced an approximate investment return of (1.0%). The negative investment return on the AVA can be attributed to the smoothing of prior losses that more than offset the gain on Market Value from June 30, 2010 to June 30, 2011.

#### HIGHLIGHTS OF THE ACTUARY'S REPORT (CONTINUED)

#### **Cost-of-Living Adjustment**

No increase in monthly benefits was provided to retired members, disabled members, or beneficiaries as of July 1, 2011.

## **Changes in Actuarial Assumptions**

For the June 30, 2011 valuation, the Board approved the following assumption changes:

- The retirement rates were increased to 20% for ages 62 - 64 to reflect recent experience.

## **Changes in Plan Provisions**

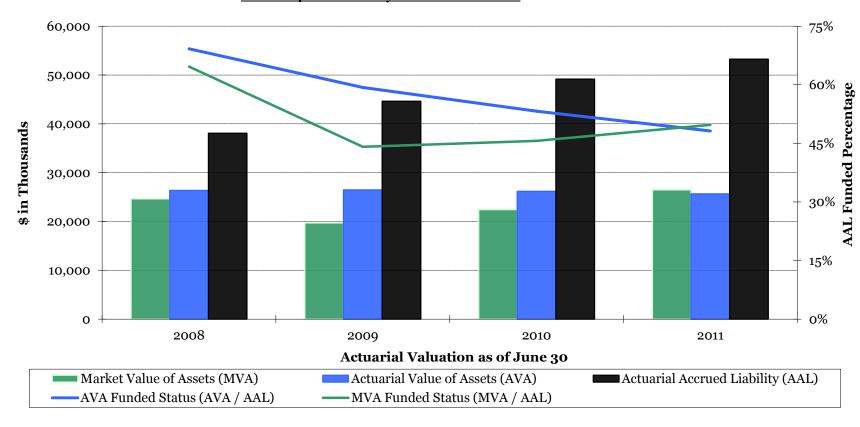
There have been no changes in the plan provisions since the June 30, 2010 valuation.

## **Changes in Actuarial Methods**

At the December 16, 2011 meeting, the Board resolved to discontinue the use of the contribution rate smoothing rules.

#### **HISTORICAL SUMMARY**

## PARF - 4 Year History of Funded Status 1



Actuarial Valuation as of June 30:	<u>2008</u>	<u> 2009</u>	<u>2010</u>	<u>2011</u>
Actuarial Accrued Liability (AAL)	\$38,069.0	\$44,632.2	\$49,173.7	\$53,252.4
Actuarial Value of Assets (AVA)	26,350.5	26,466.7	26,166.3	25,651.5
Market Value of Assets (MVA)	24,613.0	19,695.8	22,431.0	26,477.7
Unfunded Liability (AAL - AVA)	11,718.5	18,165.5	23,007.4	27,600.9
AVA Funded Status (AVA / AAL)	69.2%	59.3%	53.2%	48.2%
MVA Funded Status (MVA / AAL)	64.7%	44.1%	45.6%	49.7%

 $<sup>^{\</sup>scriptscriptstyle 1}$  Valuation results prior to June 30, 2010 were calculated by the prior actuary.

#### **HISTORICAL SUMMARY (CONTINUED)**

## Summary of Valuation Results 1

	Jur	ne 30, 2008	Jui	1e 30, 2009	Ju	ne 30, 2010	Ju	ne 30, 2011
Development of True Rate <sup>2</sup>								
Normal Cost (Beginning of Year)	\$	1,684,022	\$	1,550,463	\$	1,440,080	\$	1,381,736
Amortization of Unfunded Actuarial Accrued Liability		911,961		1,429,350		1,780,415		2,148,558
Interest Adjustment <sup>3</sup>		94,104		108,018		-		-
Employee Contributions		(1,231,332)		(1,218,694)	-	(1,260,966)		(1,084,919)
Total Contribution Amount	\$	1,458,755	\$	1,869,137	\$	1,959,529	\$	2,445,375
True Contribution Rate		7.08%		8.99%		9.32%		13.52%
Estimated State Appropriations <sup>2</sup>								
Contribution Rate <sup>4</sup>		6.50%		8.00%		8.75%		13.52%
Estimated State Appropriations <sup>5</sup>	\$	1,340,108	\$	1,662,570	\$	1,838,908	\$	2,542,470

<sup>&</sup>lt;sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>&</sup>lt;sup>2</sup> The rates and contribution amounts shown were developed on a <u>funding</u> basis only and do not reflect accounting requirements.

<sup>&</sup>lt;sup>3</sup> Valuation results prior to June 30, 2010 included an interest adjustment to the middle of the year because the payroll used for computing contribution rates was not discounted to the beginning of the year.

<sup>&</sup>lt;sup>4</sup> Prior to June 30, 2011, rates shown reflect application of the contribution rate smoothing rules. At the December 16, 2011 meeting, the Board resolved to discontinue the use of the contribution rate smoothing rules.

<sup>&</sup>lt;sup>5</sup> Estimated State Appropriations prior to June 30, 2011 are based on actual payroll as of the valuation date. Estimated State Appropriations for June 30, 2011 are based on projected payroll for the applicable fiscal year.

## <u>SECTION I - EXECUTIVE SUMMARY</u>

## **HISTORICAL SUMMARY (CONTINUED)**

## Summary of Valuation Results (Continued) 1

	Ju	ne 30, 2008	Ju	ne 30, 2009	Ju	ıne 30, 2010	Ju	ne 30, 2011
Census Information								
Active								
Number		209		221		217		212
Average Age		47.7		47.6		48.4		48.0
Average Years of Service		16.8		14.4		9.7		9.0
Covered Payroll of Actives	\$	20,617,041	\$	20,782,123	\$	21,016,094	\$	18,081,976
Inactive - Vested								
Number		303		256		74		85
Average Age						56.4		54.9
Average Years of Service						12.0		12.3
Inactive - Non-Vested <sup>2</sup>								
Number						177		177
Retiree/Beneficiary/Disabled								
Number		26		50		58		76
Average Age						69.2		69.1
Annual Benefits Payable	\$	521,769	\$	1,031,799	\$	1,201,488	\$	1,617,923

 $<sup>^{1}</sup>$  Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>&</sup>lt;sup>2</sup> For June 30, 2011, inactive non-vested members entitled to a refund of their ASA account have balances totaling \$3,072,232.

## HISTORICAL SUMMARY (CONTINUED)

# Summary of Valuation Results (Continued) 1

	<b>June 30, 2008</b>		June 30, 2009		June 30, 2010		June 30, 2011	
Actuarial Accrued Liability (AAL)		_				_		
ASA Account Balance	\$	17,428,000	\$	19,239,000	\$	20,999,431	\$	21,591,820
Retiree/Beneficiary/Disabled		5,173,089		10,383,556		12,556,716		16,806,641
Active and Inactive		15,467,897		15,009,623		15,617,531		14,853,913
Total	\$	38,068,986	\$	44,632,179	\$	49,173,678	\$	53,252,374
Actuarial Value of Assets (AVA)								
ASA Account Balance	\$	17,428,000	\$	19,239,000	\$	20,999,431	\$	21,591,820
Retiree/Beneficiary/Disabled		5,173,089		7,227,675		5,166,895		4,059,642
Active and Inactive		3,749,367		<u> </u>		<u> </u>		
Total	\$	26,350,456	\$	26,466,675	\$	26,166,326	\$	25,651,462
Market Value of Assets (MVA)								
ASA Account Balance	\$	17,428,000	\$	19,239,000	\$	20,999,431	\$	21,591,820
Retiree/Beneficiary/Disabled		5,173,089		456,819		1,431,529		4,885,921
Active and Inactive		2,011,882						-
Total	\$	24,612,971	\$	19,695,819	\$	22,430,960	\$	26,477,741
Unfunded Actuarial Accrued Liability: AAL - AVA								
ASA Account Balance	\$	-	\$	-	\$	-	\$	-
Retiree/Beneficiary/Disabled		-		3,155,881		7,389,821		12,746,999
Active and Inactive		11,718,530		15,009,623		15,617,531		14,853,913
Total	\$	11,718,530	\$	18,165,504	\$	23,007,352	\$	27,600,912
Funded Percentage								
ASA Account Balance		100.0%		100.0%		100.0%		100.0%
Retiree/Beneficiary/Disabled		100.0%		69.6%		41.1%		24.2%
Active and Inactive		24.2%		0.0%		0.0%		0.0%
Total		69.2%		59.3%		53.2%		48.2%
Summary of Assumptions								
Valuation Interest Rate		7.25%		7.25%		7.0%		7.0%
Salary Scale		4.0%		4.0%		4.0%		4.0%

 $<sup>^{\</sup>rm 1}$  Valuation results prior to June 30, 2010 were calculated by the prior actuary.

#### **FUNDING**

	Page
A. Development of Funded Status	7
B. Unfunded Actuarial Accrued Liability Reconciliation	8
C. Actuarial Accrued Liability Reconciliation	ç
D. Reconciliation of Market Value of Assets	10
E. Reconciliation of Actuarial Value of Assets	1:
F. Contribution Rate	12
G. Unfunded Actuarial Accrued Liability Amortization Schedule	15
H. Approximate Investment Return for Year Ending June 30, 2011	14
I. Historical Investment Experience	14

INPRS PwC

## A. Development of Funded Status

		Ju	<b>June 30, 2010</b>		June 30, 2011	
1.	Actuarial Accrued Liability  a. Annuity Savings Account  b. Retirees, Beneficiaries, and Disableds  c. Actives and Inactives	\$	20,999,431 12,556,716 15,617,531	\$	21,591,820 16,806,641 14,853,913	
	d. Total: $(1)(a) + (1)(b) + (1)(c)$	\$	49,173,678	\$	53,252,374	
2.	Actuarial Value of Assets  a. Annuity Savings Account  b. Retirees, Beneficiaries, and Disableds  c. Actives and Inactives	\$	20,999,431 5,166,895 -	\$	21,591,820 4,059,642	
	d. Total: $(2)(a) + (2)(b) + (2)(c)$	\$	26,166,326	\$	25,651,462	
3.	<ul> <li>Unfunded Actuarial Accrued Liability</li> <li>a. Annuity Savings Account: (1)(a) - (2)(a)</li> <li>b. Retirees, Beneficiaries, and Disableds: (1)(b) - (2)(b)</li> <li>c. Actives and Inactives: (1)(c) - (2)(c)</li> <li>d. Total: (1)(d) - (2)(d)</li> </ul>	\$	7,389,821 15,617,531 23,007,352	\$	12,746,999 14,853,913 27,600,912	
4.	Funded Percentage  a. Annuity Savings Account: (2)(a) / (1)(a)  b. Retirees, Beneficiaries, and Disableds: (2)(b) / (1)(b)  c. Actives and Inactives: (2)(c) / (1)(c)  d. Total: (2)(d) / (1)(d)		100.0% 41.1% 0.0% 53.2%		100.0% 24.2% 0.0% 48.2%	

# B. Unfunded Actuarial Accrued Liability Reconciliation <sup>1</sup>

		Jun	e 30, 2010	June 30, 2011		
1.	Unfunded Actuarial Accrued Liability, Prior Year	\$	18,165,504	\$	23,007,352	
2.	Unfunded Actuarial Accrued Liability (Gain) / Loss					
	a. Actuarial Value of Assets Experience	\$	4,127,414	\$	4,046,593	
	b. Actuarial Accrued Liability Experience		(6,268,353)		919,273	
	c. Additional Liability Due to Transition from Prior Actuary		3,869,322		-	
	d. Additional Liability Due to Changes in Actuarial Assumptions		3,329,444		(77,777)	
	e. Additional Liability Due to Changes in Plan Provisions					
	f. Total New Amortization Bases:	\$	5,057,827	\$	4,888,089	
	(2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e)					
	g. Amortization of Existing Bases		(215,979)		(294,529)	
	h. Change in Unfunded Actuarial Accrued Liability:	\$	4,841,848	\$	4,593,560	
	(2)(f) + (2)(g)					
3.	Unfunded Actuarial Accrued Liability, Current Year: (1) + (2)(h)	\$	23,007,352	\$	27,600,912	

 $<sup>^{1}</sup>$  Valuation results prior to June 30, 2010 were calculated by the prior actuary.

## C. Actuarial Accrued Liability Reconciliation

1.	June 30, 2010 Actuarial Accrued Liability	\$ 49,173,678	
2.	Normal Cost	1,440,080	
3.	Actual Benefit Payments	1,686,805	
4.	Interest of 7.00% on $(1) + (2) - (3)/2$	 3,483,925	
5.	Expected June 30, 2011 Actuarial Accrued Liability:	\$ 52,410,878	
	(1) + (2) - (3) + (4)		
		Dollar Change	Percent Change
		 in Liability	in Liability
6.	(Gain)/Loss Components		
	a. Census	\$ 919,273	1.8%
	b. Assumption Changes	 (77,777)	(0.2%)
	c. Total: $(6)(a) + (6)(b)$	\$ 841,496	1.6%
7.	Actual June 30, 2011 Actuarial Accrued Liability: (5) + (6)(c)	\$ 53,252,374	

## D. Reconciliation of Market Value of Assets

			ıne 30, 2010	June 30, 2011		
1.	Market Value of Assets, Prior June 30	\$	19,695,819	\$	22,430,960	
2.	Receipts					
	a. Employer Contributions	\$	170,000	\$	170,000	
	b. Employee Contributions		1,267,508		1,271,262	
	c. Investment Income and Dividends Net of Fees		2,580,012		4,355,541	
	d. Security Lending Income Net of Fees		14,904		14,548	
	e. Net Transfers In		-		-	
	f. Miscellaneous Income		<u> </u>			
	g. Total Receipts: $(2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) + (2)(f)$	\$	4,032,424	\$	5,811,351	
3.	Disbursements					
	a. Benefits Paid During the Year	\$	1,162,603	\$	1,391,384	
	b. Refund of Contributions and Interest		79,972		263,335	
	c. Administrative Expenses		54,708		77,765	
	d. Net Transfers Out		-		32,086	
	e. Miscellaneous Disbursements		<u> </u>			
	f. Total Disbursements: $(3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e)$	\$	1,297,283	\$	1,764,570	
4.	Market Value of Assets, Current June 30: $(1) + (2)(g) - (3)(f)$	\$	22,430,960	\$	26,477,741	
5.	Market Value of Assets Approximate Annual Rate of Investment Return		12.8%		19.2%	

## **E.** Reconciliation of Actuarial Value of Assets

1.	Market Value of Assets, June 30, 2010	\$ 22,430,960
2.	Market Value of Assets, June 30, 2011	26,477,741
3.	<ul> <li>Expected Earnings/Expenses</li> <li>a. Expected Investment Earnings at 7.00% on June 30, 2010 Market Value</li> <li>b. Receipts and Expected Investment Earnings at 7.00%</li> <li>c. Disbursements and Expected Investment Earnings at 7.00%</li> </ul>	1,570,167 1,491,706 1,745,843
4.	Expected Assets, June 30, 2011: (1) + $(3)(a)$ + $(3)(b)$ - $(3)(c)$	\$ 23,746,990
5.	2010-2011 Gain/(Loss): (2) - (4)	2,730,751
6.	Smoothing of (Gain)/Loss           Year         Gain/(Loss)         % Unrecognized           a.         2010-2011         \$ 2,730,751         75%	2,048,063
	b. 2009-2010 1,105,194 50%	552,597
	c. 2008-2009 (7,097,522) 25%	(1,774,381)
7.	Preliminary Actuarial Value of Assets, June 30, 2011: (2) - (6)(a) - (6)(b) - (6)(c)	\$ 25,651,462
8.	Corridor	
	a. 120% of Market Value	31,773,289
	b. 80% of Market Value	21,182,193
9.	Actuarial Value of Assets, June 30, 2011	\$ 25,651,462
10.	Actuarial Value of Assets as a Percent of Market Value: (9) / (2)	96.9%
11.	Actuarial Value of Assets Approximate Annual Rate of Investment Return	(1.0%)

## F. Contribution Rate

		 June 30, 2010	Jι	ıne 30, 2011
Develop	oment of Annual Required Contribution:			
1.	Current Payroll	\$ 21,016,094	\$	18,081,976
2.	Normal Cost (Beginning of Year)			
	a. Amount	\$ 1,440,080	\$	1,381,736
	b. Percentage of Payroll	6.85%		7.64%
3.	Unfunded Actuarial Accrued Liability (UAAL) Annual Amortizations			
	a. Amount	\$ 1,780,415	\$	2,148,558
	b. Percentage of Payroll	8.47%		11.88%
4.	Expected Employee Contributions			
	a. Amount	\$ 1,260,966	\$	1,084,919
	b. Percentage of Payroll	6.00%		6.00%
5.	Annual Required Contribution Rate (True Rate, Before Smoothing): (2)(b) + (3)(b) - (4)(b)	9.32%		13.52%
6.	Estimated Annual Required Contribution Amount			
	a. Fiscal Year Beginning	July 1, 2011		July 1, 2012
	b. Anticipated Payroll: (1) x [(1 + 4.0%)]	\$ 21,856,738	\$	18,805,255
	c. Amount: $(5) \times (6)(b)^{1,2}$	\$ 2,037,048	\$	2,542,470
Develop	oment of Funding Rate:			
7.	Prior Year Actual Rate	8.00%		
8.	Difference between True Rate and Prior Year Actual Rate: (5) - (7)	1.32%		
9.	One-half of difference in (8) rounded up to the next quarter percent	0.75%		
10.	Smoothed Rate: $[(7) + (9)$ , not less than $(7)$ ]	8.75%		
Approv	ed Funding Amount:			
		\$ 1,838,908	\$	2,542,470

<sup>&</sup>lt;sup>1</sup> Since the fiscal year to which contributions apply begins one year after the valuation date, the Annual Required Contribution Amount is estimated by assuming payroll will increase 4.00% per year and then applying the Annual Required Contribution Rate computed at the valuation date.

<sup>&</sup>lt;sup>2</sup> PARF is a State appropriated fund. Employer Contributions are expected to be paid by the State of Indiana.

## G. Unfunded Actuarial Accrued Liability Amortization Schedule 1

	Date Base Established	Reason		Remaining Unfunded	Remaining Period	Amortization Amount		
1.	6/30/2009	Fresh Start	\$	17,708,540	26	\$	1,399,488	
2.	6/30/2010	Actuarial Experience and Changes in Actuarial Assumptions		5,004,283	29		380,927	
3.	6/30/2011	Actuarial Experience and Changes in Actuarial Assumptions		4,888,089	30		368,143	
	Total		\$	27,600,912		\$	2,148,558	

INPRS 13 PwC

 $<sup>^{1}</sup>$  Valuation results prior to June 30, 2010 were calculated by the prior actuary.

## H. Approximate Investment Return for Year Ending June 30, 2011

		Market Value of Assets	A	ctuarial Value of Assets
1.	Balance, beginning of year	\$ 22,430,960	\$	26,166,326
2.	Balance, end of year	26,477,741		25,651,462
3.	Total increase: (2) - (1)	4,046,781		(514,864)
4.	Contributions and Transfers In	1,441,262		1,441,262
5.	Benefit payments and Transfers Out	1,686,805		1,686,805
6.	Net additions: (4) - (5)	(245,543)		(245,543)
7.	Net investment increase: (3) - (6)	4,292,324		(269,321)
8.	Average assets: $[(1) + (2) - (7)] / 2$	22,308,189		26,043,555
9.	Approximate rate of return: (7) / (8) <sup>1</sup>	19.2%		(1.0%)

## I. Historical Investment Experience

1.	2.	4.		
_	Approximate Annual Rate of I	Actuarial Assumed		
Year Ending June 30	Market Basis	Actuarial Basis	Interest Rate	
2003	4.5%	(1.2%)		
2004	16.0%	3.1%		
2005	9.4%	6.4%		
2006	10.2%	14.4%		
2007	17.9%	15.4%	7.25%	
2008	(8.1%)	8.2%	7.25%	
2009	(21.4%)	(1.0%)	7.25%	
2010	12.8%	(1.9%)	7.25%	
2011	19.2%	(1.0%)	7.00%	

<sup>&</sup>lt;sup>1</sup> Net of expenses.

#### ACCOUNTING

	<u>Page</u>
A. Assumptions and Methods Under GASB #25 and #27	15
B. Membership Data	15
C. Statement of Plan Net Assets	16
D. Statement of Changes in Plan Net Assets	17
E. Schedule of Funding Progress	18
F. Schedule of Employer Contributions	18
G. Development of Net Pension Obligation (NPO)	19
H. Three-Year Trend Information	19
I. Solvency Test	20

INPRS PwC

#### REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27

#### A. Assumptions and Methods Under GASB #25 and #27

Under the Governmental Accounting Standards Board (GASB) Statements No. 25 and No. 27, certain information about the plan is required to be disclosed. The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date June 30, 2011

Actuarial Cost Method Entry Age Normal (Level Percent of Payroll)

Amortization Method Level Dollar

Amortization Period 30 Years, Closed

Actuarial Value of Assets 4-Year Smoothed Market Value with 20% Corridor

**Actuarial Assumptions:** 

Investment Rate of Return 7.0%

Future Salary Increases 4.0% (includes 3.0% wage inflation)

Cost-of-Living Increases N/A

## **B.** Membership Data

The plan consisted of the following membership as of June 30, 2011, the date of the latest actuarial valuation:

Retired members, beneficiaries and disabled members receiving benefits:	76
Terminated vested plan members entitled to but not yet receiving benefits:	85
Terminated non-vested plan members entitled to refund of ASA balance:	177
Active Plan Members:	212
Total membership:	550

# REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)

# C. Statement of Plan Net Assets

16

1.	Ass	sets	
	a.	Cash and Cash Equivalents	\$ 3,035,630
	b.	Securities Lending Collateral	-
	c.	Receivables	
		i. Contributions Receivable	\$ 68,238
		ii. Accrued Investment Income	80,630
		iii. Receivables for Investment Securities	1,016,439
		iv. Member Loans	-
		v. Miscellaneous Receivables	1,294
		vi. Due From Other Governmental Plans	-
		vii. Due From Other Funds	 
		viii. Total Receivables	\$ 1,166,601
	d.	Investments	
		i. Debt Securities	\$ 6,985,312
		ii. Equity Securities	10,680,112
		iii. Mutual Funds	1,239,152
		iv. Other Investments	 5,413,921
		v. Total Investments	\$ 24,318,497
	e.	Capital Assets	 
	f.	Total Assets: $(1)(a) + (1)(b) + (1)(c)(viii) + (1)(d)(v) + (1)(e)$	\$ 28,520,728
2.	Lia	bilities	
	a.	Accounts Payable	\$ 2,988
	b.	Salaries and Benefits Payable	-
	c.	Investments Payable	1,817,735
	d.	Securities Lending Collateral	-
	e.	Due To Other Governmental Plans	-
	f.	Due To Other Funds	 222,264
	g.	Total Current Liabilities	\$ 2,042,987
	h.	Compensated Absences - Long Term	 
	i.	Total Liabilities: $(2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) + (2)(f) + (2)(g) + (2)(h)$	\$ 2,042,987
3.	Net	t Assets Held in Trust for Pension Benefits: (1)(f) - (2)(i)	\$ 26,477,741

# REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)

# D. Statement of Changes in Plan Net Assets

1.	Net Assets as of June 30, 2010	\$ 22,430,960
2.	Revenue (Additions)	
	a. Contributions	
	i. Member Contributions	\$ 1,271,262
	ii. Employer Contributions	170,000
	iii. Other Contributions	 
	iv. Total Contributions	\$ 1,441,262
	b. Investment Income/Loss	
	i. Investment Income/Loss	\$ 4,509,259
	ii. Securities Lending Income	19,377
	iii. Securities Lending Expenses	(4,829)
	iv. Other Investment Expenses	 (153,718)
	v. Net Investment Income	\$ 4,370,089
	c. Other Additions	
	i. Intergovernmental Transfers	\$ -
	ii. Miscellaneous Income	 
	iii. Total Other Additions	\$ -
	d. Total Revenue (Additions): $(2)(a)(iv) + (2)(b)(v) + (2)(c)(iii)$	\$ 5,811,351
3.	Expenses (Deductions)	
	a. Pension and Disability Benefits	\$ 1,391,384
	b. Death, Survivor, and Funeral Benefits	-
	c. Distributions of Contributions and Interest	263,335
	d. Intergovernmental Transfers	32,086
	e. Pensions Relief Distributions	-
	f. Local Unit Withdrawals	-
	g. Administrative Expenses	 77,765
	h. Total Expenses (Deductions): $(3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e) + (3)(f) + (3)(g)$	\$ 1,764,570
4.	Changes in Net Assets Held in Trust for Pension Benefits: (2)(d) - (3)(h)	\$ 4,046,781
5.	Net Assets as of June 30, 2011: (1) + (4)	\$ 26,477,741

17

## REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)

## E. Schedule of Funding Progress 1

(\$ in Thousands)

1.	1. 2.		3⋅			4.	5.	6.		7.	
Actuarial											
Valuation	Actuarial Value of Assets				Unfur	nded Actuarial	AAL Funded		Current	UAAL as a	
Date June 30					Accrued Liability (UAAL)		Ratio	Payroll		% of Payroll	
						(3) - (2)	(2)/(3)			(4) / (6)	
2006	\$	20,053	\$	29,184	\$	9,131	68.7%	\$	19,225	47.5%	
2007		23,815		32,052		8,237	74.3%		18,092	45.5%	
2008		26,350		38,069		11,719	69.2%		20,617	56.8%	
2009		26,467		44,632		18,165	59.3%		20,782	87.4%	
2010		26,166		49,174		23,007	53.2%		21,016	109.5%	
2011		25,651		53,252		27,601	48.2%		18,082	152.6%	

# F. Schedule of Employer Contributions <sup>1</sup>

(\$ in Thousands)

1. Plan Year Ending	Annu	2. al Required		3. Actual	4.		
June 30	Contribution (ARC)		Employe	r Contribution	% of ARC		
					(3)/(2)		
2006	\$	952	\$	170	17.9%		
2007		1,044		190	18.2%		
2008		1,040		170	16.3%		
2009		1,340		170	12.7%		
2010		1,663		170	10.2%		
2011		1,960		170	8.7%		

<sup>&</sup>lt;sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

# REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)

## G. Development of Net Pension Obligation (NPO) 1

(\$ in Thousands)

1.		2.		3.		4.	5.	6	<b>5.</b>		7 <b>.</b>		8.		9.		10.
Plan Year	Aı	nnual	Int	terest		Actual		tual			N	NPO at					
Ending	Required		on N	NPO at	Α	RC	Amortization	Net Pension Employ		oloyer	Ch	ange	Beg	ginning	N	PO at	
June 30	Contribu	ution (ARC)	Disco	unt Rate	Adju	stment	Factor	Cost (NPC)		Contribution		oution in NPO		0	f Year	End	of Year
					(9)	/ (5)		(2) + (3) - (4)				(6) - (				(8)	+ (9)
								` , `									
2009	\$	1,340	\$	247	\$	284	11.9812	\$	1,303	\$	170	\$	1,133	\$	3,400	\$	4,533
2009 2010	\$	1,340 1,663	\$	247 329	\$		11.9812 11.8498	\$		\$	170 170	\$	1,133 1,439	\$	3,400 4,533	\$	

## H. Three-Year Trend Information 1

(\$ in Thousands)

1.		2.		3.	4.		
Plan Year			A	ctual			
Ending	Net	Pension	Em	ployer			
June 30	Cos	t (NPC)	Cont	ribution	% of NPC		
					(3)/(2)		
2009	\$	1,303	\$	170	(3) / (2) 13.0%		
2009 2010	\$	1,303 1,609	\$	170 170	(8) / ( )		

<sup>&</sup>lt;sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

I. Solvency Test <sup>1</sup>
Portion of Actuarial Liability Provided by Assets
(\$ in Thousands)

1.	2.		2. 3.		4. Non-Retired		5. Total Actuarial		6.	
As of	ASA Balances		Retired and Beneficiaries		Members (Employer Financed Portion)		Accrued Liabilities		Actuarial Value of Assets	
June 30										
2005	\$	13,132	\$	2,303	\$	10,309	\$	25,744	\$	16,876
		100.0%		100.0%		14.0%		65.6%		
2006		14,893		2,252		12,039		29,184		20,053
		100.0%		100.0%		24.2%		68.7%		
2007		16,014		3,192		12,846		32,052		23,815
		100.0%		100.0%		35.9%		74.3%		
2008		17,428		5,173		15,468		38,069		26,350
		100.0%		100.0%		24.2%		69.2%		
2009		19,239		10,384		15,009		44,632		26,467
		100.0%		69.6%		0.0%		59.3%		
2010		20,999		12,557		15,618		49,174		26,166
		100.0%		41.1%		0.0%		53.2%		
2011		21,592		16,806		14,854		53,252		25,651
		100.0%		24.2%		0.0%		48.2%		

<sup>&</sup>lt;sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

#### **CENSUS DATA**

	<u>Page</u>
A. Reconciliation of Participant Data	21
B. Census Information	22
C. Schedule of Active Member Valuation Data	23
D. Schedule of Retirees, Beneficiaries, and Disabled Members	24
E. Distribution of Active Members by Age and Service	25
F. Distribution of Inactive Vested Members by Age and Service	26
G. Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired	27
H. Schedule of Benefit Recipients by Type of Benefit Option	28
I. Schedule of Average Benefit Payments as of June 30, 2011	28

INPRS PwC

# A. Reconciliation of Participant Data

## Inactive Non-Vested

	Actives	ASA Balance	Inactive Vested	Disabled	Retired	Beneficiary	Total
Total as of June 30, 2010	217	177	74	1	51	6	526
New Entrants	37	-	-	-	-	-	37
Rehires	10	(4)	(6)	-	-	-	-
Non-Vested Terminations	(19)	19	-	-	-	-	-
Vested Terminations	(23)	-	23	-	-	-	-
Retirements	(8)	(2)	(7)	-	17	-	-
Disablements	-	-	-	-	-	-	-
Death with Beneficiary	-	-	-	-	-	-	-
Death without Beneficiary	-	-	-	-	-	(1)	(1)
Refunds	(1)	(13)	-	-	-	-	(14)
Data Adjustments	(1)		1		2		2
Total as of June 30, 2011	212	177	85	1	70	5	550

## **B.** Census Information

		June 30	, 2010	Ju	ne 30, 2011
1.	Active				
	a. Number		217		212
	b. Average Age		48.4		48.0
	c. Average Years of Service		9.7		9.0
	d. Covered Payroll of Actives	\$ 2	21,016,094	\$	18,081,976
2.	Inactive - Vested				
	a. Number		74		85
	b Average Age		56.4		54.9
	c. Average Years of Service		12.0		12.3
3.	Inactive - Non-Vested <sup>1</sup>				
	a. Number		177		177
4.	Retiree/Beneficiary/Disabled				
	a. Number		58		76
	b. Average Age		69.2		69.1
	c. Annual Benefits Payable	\$	1,201,488	\$	1,617,923

 $<sup>^{1}</sup>$  For June 30, 2011, inactive non-vested members entitled to a refund of their ASA account have balances totaling \$3,072,232.

# C. Schedule of Active Member Valuation Data 1

1.	2.		3.		4.	5.		
		A	Annual			Annual		
As of	Active	]	Payroll	A	Average	Percent		
June 30	Members	(\$ in '	(\$ in Thousands)		(\$ in Thousands)		Pay	Increase
				(	3) / (2)			
2005	220	\$	16,659	\$	75,723	7.0%		
2006	218		19,225		88,188	16.5%		
2007	206		18,092		87,825	(0.4%)		
2008	209		20,617		98,646	12.3%		
2009	221		20,782		94,036	(4.7%)		
2010	217		21,016		96,848	3.0%		
2011	212		18,082		85,292	(11.9%)		

PwC

 $<sup>^{1}</sup>$  Valuation results prior to June 30, 2010 were calculated by the prior actuary.

## D. Schedule of Retirees, Beneficiaries, and Disabled Members <sup>1</sup>

1.	2.	3.	4. 5.		6.	7.	8.	9.	
_	Ad	lded	Ren	noved	End o	of Year <sup>2</sup>			
		Annual		Annual		Annual	% Increase in	Average	
Fiscal Year Ending		Allowances		Allowances		Allowances	Annual	Annual	
June 30	Number	(\$ in Thousands)	Number (\$ in Thousands) Num			(\$ in Thousands)	Allowances	Allowances	
2005	-	\$ -	-	\$ -	18	\$ 249	(3.0%)	\$ 13,831	
2006	-	-	-	-	18	249	0.1%	13,850	
2007	4	121	2	32	20	338	35.6%	16,905	
2008	7	207	1	14	26	522	54.3%	20,068	
2009	26	536	2	26	50	1,032	97.8%	20,636	
2010	9	187	1	16	58	1,201	16.4%	20,715	
2011	19	473	1	16	76	1,618	34.7%	21,288	

**INPRS** 

 $<sup>^{1}</sup>$  Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>&</sup>lt;sup>2</sup> End of year annual allowances are not equal to the prior end of year annual allowances plus additions and less removals because of reductions for beneficiary benefits, data changes, and cost-of-living increases.

# E. Distribution of Active Members by Age and Service

Attained				Distribut	ion of Active Men	nbers by Age and	Service as of June	30, 2011			
Age	Under 1 year	1 to 4 years	5 to 9 years	10 to 14 years	15 to 19 years	20 to 24 years	25 to 29 years	30 to 34 years	35 to 39 years	Over 40 years	Total
<25											
25-29	4										4
30-34	7	8	1								16
35-39	7	13	8	1							29
40-44	4	9	14	10	3						40
45-49	5	4	9	6	6						30
50-54	3	2	4	10	5	4					28
55-59	1	3	8	4	7	8					31
60-64	3	1	8	5	2	5			1		25
65-69	1	2	2	2			1				8
70&Up			1								1
Total	35	42	55	38	23	17	1		1		212

# F. Distribution of Inactive Vested Members by Age and Service

Attained	Distribution of Inactive Vested Members by Age and Service as of June 30, 2011										
Age	Under 5 years	5 to 9 years	10 to 14 years	15 to 19 years	20 to 24 years	25 to 29 years	Over 30 years	Total			
<25											
25-29											
30-34											
35-39				1				1			
40-44	1	1	6	1				9			
45-49		1	4	3	3			11			
50-54			8	4	5			17			
55-59	3		3	6	2	2	3	19			
60-64	9	1	2	4	4	1	1	22			
65-69	4		1			1		6			
70&Up											
Total	17	3	24	19	14	4	4	85			

# G. Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired <sup>1</sup>

Attained	Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired as of June 30, 2011										
Age	Under 5 years	5 to 9 years	10 to 14 years	15 to 19 years	20 to 24 years	25 to 29 years	Over 30 years	Total			
<40											
40-44											
45-49											
50-54			1					1			
55-59											
60-64	10							10			
65-69	40	2	1					43			
70-74	3	4	3	1				11			
75-79			3	2	1			6			
80-84				4				4			
85-89				1				1			
90&Up											
Total	53	6	8	8	1			76			

27

<sup>&</sup>lt;sup>1</sup> 13 members do not have a date of retirement. For these members we assumed they retired at the earlier of June 30, 2011 and 65.

## H. Schedule of Benefit Recipients by Type of Benefit Option

Number of Benefit Recipients by Benefit Option as of June 30, 2011

					0 - 7 -
Amount of Monthly Benefit	Retiree Single Life Annuity	Retiree 50% Joint and Survivor Annuity	Survivors	Disability	Total
\$ 1-500	1	5	2	О	8
501 - 1,000	2	12	2	0	16
1,001 - 1,500	1	15	0	0	16
1,501 - 2,000	0	5	1	1	7
2,001 - 3,000	0	15	0	0	15
over 3,000	2	12	0	0	14
Total	6	64	5	1	76

## I. Schedule of Average Benefit Payments as of June 30, 2011

Years of Credited Service

	0-4 5-9		10-14 15-19		20-24 25-29			30+		Total		
Average Monthly Defined Benefit	\$ 1,689	\$	1,062	\$ 1,413	\$	1,831	\$ 2,252	\$	2,219	\$	2,615	\$ 1,774
Average Final Average Salary		\$	58,939	\$ 55,721	\$	69,668	\$ 79,113	\$	95,745	\$	101,967	\$ 68,573
Number of Benefit Recipients	13		4	20		20	12		4		3	76

<sup>&</sup>lt;sup>1</sup> For some members average salary at retirement and years of credited service was not available. The average salary for each group excludes these members. Members with credited service information that is missing are counted in the "0-4" group.

## <u>SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS</u>

#### ACTUARIAL ASSUMPTIONS AND METHODS

	Page
A. Actuarial Assumptions	29
B. Actuarial Methods	3

INPRS PwC

# SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

### A. Actuarial Assumptions

The assumptions used in the valuation were selected and approved by the INPRS Board of Trustees. The demographic assumptions are reviewed every five years through a study of actual experience. In this way, the actuary provides guidance to the Board in selecting the assumptions. The actuary and other economic and investment professionals also provide advice to the Board for selecting the economic assumptions. In our opinion, the assumptions are reasonable for purposes of this valuation.

Interest Rate / Investment Return 7.0% (net of administrative and investment expenses)

Interest on Member ASA Balances 5.5% per year

Future Salary Increases 4.0% per year

Inflation 3.0% per year

Cost of Living Increases N/A

Mortality (Healthy and Disabled) 2008 IRS Static Mortality projected five (5) years with Scale AA

Disability Illustrative rates shown below:

Age	Male	Female
20	0.0067%	0.0050%
30	0.0208%	0.0158%
40	0.0646%	0.0496%
50	0.2005%	0.1556%
60	0.6220%	0.4881%
70	0.1000%	0.1000%
71+	0.0000%	0.0000%

### SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

# A. Actuarial Assumptions (continued)

Termination 10% per year for all members prior to retirement eligibility.

Retirement Based on 2005 - 2010 experience. Rates shown below:

Age	Rate
62	20.00%
63	20.00%
64	20.00%
65	100.00%

Decrement Timing Decrements are assumed to occur at the beginning of the year.

Spouse/Beneficiary 90% of participants are assumed either to be married or to have a dependent beneficiary. Males are

assumed to be three (3) years older than their spouses.

Data Assumptions Actives and inactives with either no date of birth and/or no gender are assumed to be age 53 and/or male.

Spouse gender is assumed to be the opposite gender of the member.

Retirees and disabled members that are not married and do not have a retirement option listed are assumed to elect a single life annuity. Retirees and disabled members that are married and do not have a retirement option listed are assumed to be receiving a 50% joint and survivor annuity. Beneficiaries that do not have a retirement option listed are assumed to receive monthly payments for life.

Changes in Assumptions For the June 30, 2011 valuation, the Board approved the following assumption changes:

- The retirement rates were increased to 20% for ages 62 - 64 to reflect recent experience.

#### SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

#### **B.** Actuarial Methods

The actuarial methods used in this valuation were selected and approved by the Board. In general, the methods provide orderly funding of all benefits being accrued, as well as unfunded past-service benefit liabilities, over a period of thirty years. However, the smoothing method employed in determining the Actuarial Value of Assets may accelerate or lengthen the effective funding period, depending on whether gains or losses are experienced. In our opinion, the actuarial methods are reasonable for the purposes of this valuation.

#### 1. Actuarial Cost Method

The actuarial cost method is Entry Age Normal - Level Percent of Payroll.

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

Gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. The purpose of the method is to give a smooth progression of the costs from year to year and, at the same time, provide for an orderly funding of the unfunded liabilities.

#### 2. Asset Valuation Method

Actuarial Value of Assets is equal to a four-year smoothing of gains and losses on the Market Value of Assets, subject to a 20% corridor.

# 3. <u>Changes in Actuarial Methods</u>

At the December 16, 2011 meeting, the Board resolved to discontinue the use of the contribution rate smoothing rules.

# **SUMMARY OF PLAN PROVISIONS**

	<u>Page</u>
A. Summary of Plan Provisions	32

INPRS PwC

# A. Summary of Plan Provisions

The benefit provisions for PARF are set forth in IC 33-39-7. A summary of those defined pension benefit provisions is presented below:

Participation All individuals serving as a prosecuting attorney or chief deputy prosecuting attorney in Indiana on or after

January 1, 1990.

Eligibility for Defined Pension Benefits

a. Normal Retirement Age 65 with 8 or more years of creditable service

b. Early Retirement Age 62 with 8 or more years of creditable service

c. Late Retirement Subject to continued employment after normal retirement

d. Disability Retirement 5 or more years of creditable service and qualify for Social Security disability benefits or federal Civil Service

disability benefits

e. Termination 8 or more years of creditable service and no longer active (i.e. vested inactive)

f. Pre-Retirement Death 8 or more years of creditable service

# A. Summary of Plan Provisions (continued)

## **Amount of Benefits**

a. Normal Retirement

The normal retirement benefit is a monthly annuity payable for life with a 50% continuation (or \$7,000 annually, if greater) to a surviving spouse or surviving dependent children. The benefit is equal to a percentage of earnings<sup>1</sup> in accordance with the following table:

Years of Service	<u>Percentage</u>
less than 8	0%
8	24%
9	27%
10	30%
11	33%
12	50%
13	51%
14	52%
15	53%
16	54%
17	55%
18	56%
19	57%
20	58%
21	59%
22 or more	60%

The benefit is reduced by the pension, if any, payable from PERF.

<sup>&</sup>lt;sup>1</sup> Earnings is the highest annual salary attributable to service as a prosecuting attorney or chief deputy at the time of separation from service. Amounts paid to a participant by a county or counties are not included.

### A. Summary of Plan Provisions (continued)

#### Amount of Benefits (continued)

b. Early Retirement The early retirement benefit is the accrued retirement benefit determined as of the early retirement date and

payable commencing at the normal retirement date. A participant may elect to have the benefit commence prior to normal retirement provided the benefit is reduced by 0.25% for each month that the benefit commencement date precedes the normal retirement date. The benefit is reduced by the pension, if any,

payable from PERF.

c. Late Retirement The late retirement benefit is calculated in the same manner as the normal retirement benefit. The benefit is

reduced by the pension, if any, payable from PERF.

d. Disability Retirement

The disability retirement benefit is payable for the duration of the disability commencing the month following disability date without reduction for early commencement. The amount of monthly benefit shall be equal to a percentage of average monthly earnings in accordance with the following table:

Years of Service	<u>Percentage</u>
Less than 5	0%
5 - 10	40%
11	41%
12	42%
13	43%
14	44%
15	45%
16	46%
17	47%
18	48%
19	49%
20 or more	50%

The benefit is reduced by the pension, if any, payable from PERF.

**PwC** 

### A. Summary of Plan Provisions (continued)

#### Amount of Benefits (continued)

e. Termination The termination benefit is the accrued retirement benefit determined as of the termination date and payable

commencing as of the normal retirement date. The participant may elect to receive a reduced early

retirement benefit. The benefit is reduced by the pension, if any, payable from PERF.

f. Death The spouse or dependent beneficiary is entitled to receive 50% of the monthly life annuity the participant was

receiving or was entitled to receive (or \$7,000 annually, if greater) under the assumption that the participant retired on the later of age 62 or the day before the date of death. The benefit is reduced by the pension, if any,

payable from PERF.

Member Contributions Each member is required to contribute to the Fund at the rate of 6% of pay. These contributions are kept on

deposit and credited with interest until such time as they are refunded or used to provide the annuity

benefit at retirement.

Forms of Payment

a. Single Life Member will receive a monthly benefit for life, but there are no monthly payments to anyone after death.

Annuity

Joint with One-Half Survivor Benefits Member will be paid a monthly benefit for life. After death, one-half (1/2) of the benefit will be paid to the spouse

for their lifetime or the dependent until age 18.

Withdrawal from Fund If member's employment is terminated prior to eligibility for a retirement annuity, the member may withdraw

their contributions from the Fund.

Changes in Provisions No changes since prior valuation.

# **Definitions of Technical Terms**

	<u>Page</u>
A. Definitions of Technical Terms	36

INPRS PwC

#### A. Definitions of Technical Terms

Actual Rate For valuations prior to June 30, 2011, the contribution rate expressed as a percentage of covered payroll on an annual basis (not less than 0.0%) that is the result of applying applicable smoothing rules to the prior

year Actual Rate and current year True Rate. For valuations beginning June 30, 2011, the contribution rate

does not pertain to the smoothing rules previously applied.

Actuarial Accrued Liability

(AAL)

That portion, as determined by a particular Actuarial Cost Method, of the Present Value of Future Benefits (PVFB) and expenses which is not provided for by future Normal Costs. Generally this means the portion

of the PVFB attributable to past service.

Actuarial Assumptions Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal,

disablement and retirement; changes in compensation and Government provided pension benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other

relevant items.

Actuarial Cost Method A procedure for determining an actuarially equivalent allocation of the Present Value of Future Benefits to

time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

Actuarially Equivalent A method of making the actuarial present value of two series of payments equal as of a given date using

the same assumptions.

Actuarial Gain/(Loss) The difference between actual unfunded Actuarial Accrued Liability and anticipated unfunded Actuarial

Accrued Liability — during the period between two valuation dates. It is a measurement of the difference

between actual and expected experience.

Actuarial Present Value The single amount now that is equal to a payment or series of payments in the future. It is determined by

discounting future payments at predetermined rates of interest and by probabilities of payment.

Actuarial Valuation The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value

of Assets, and related Actuarial Present Values for a pension plan.

INPRS PwC

## A. Definitions of Technical Terms (continued)

Actuarial Valuation Date The date as of which an actuarial valuation is performed.

Amortization The payment of a present value financial obligation on an installment basis over a future number of years.

Annual Required Contribution The employer's periodic reconstruction of the Employer (ARC) the plan provisions, actuari

The employer's periodic required contributions to a defined benefit pension plan, calculated in accordance with the plan provisions, actuarial assumptions, actuarial cost method and other actuarial method prescribed by Governmental Accounting Standards No. 25 and No. 27.

Creditable Service Service Service credited under the system that was rendered before the date of the actuarial valuation.

Funding Policy

The program for the amounts and timing of contributions to be made by plan members, employer, and other contributing entities (for example, state government contributions to a local government plan) to provide the benefits specified by a pension plan.

The amount to be amortized is divided into equal dollar amounts to be paid over a given number of years; part of each payment is interest and part is principal (similar to a mortgage payment on a building). Because payroll can be expected to increase as a result of inflation, level dollar payments generally represent a decreasing percentage of payroll; in dollars adjusted for inflation, the payments can be expected to decrease over time.

That portion of the present value of future benefits which is allocated to a valuation year by the Actuarial Cost Method. The normal cost is specific to the cost method used.

Resources, usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, or equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employer(s) or plan administrator, for the payment of benefits in accordance with the terms of the plan.

**PwC** 

Level Dollar Amortization Method

Normal Cost (NC)

**Plan Assets** 

### A. Definitions of Technical Terms (continued)

**Plan Members** 

The individuals covered by the terms of a pension plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.

Present Value of Future Benefits (PVFB) Projected benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members upon retirement) as a result of their service through the valuation date and their expected future service. The actuarial present value of projected future benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment (taking into account mortality, turnover, probability of participating in plan retirement, etc.). Alternatively, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay the projected benefits when due.

True Rate

The precise actuarial contribution rate (not less than 0.0%) determined by summing the Normal Cost and amortization of unfunded Actuarial Accrued Liability and dividing by anticipated payroll.